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MODEL 5300557
400 - 450 MHz
300 WATTS
LINEAR POWER RF AMPLIFIER

**Solid State
 Broadband High
 Power RF Amplifier**

The 5300557 is a 300 Watt broadband amplifier that covers the 400 – 450 MHz frequency range. This small and lightweight amplifier utilizes Class A/AB linear power devices that provide an excellent 3rd order intercept point, high gain, and a wide dynamic range.

Due to robust engineering and employment of the most advanced devices and components, this amplifier achieves high efficiency operation with proven reliability. Like all OPHIR_{RF} amplifiers, the 5300557 comes with an extended multiyear warranty.

The 5300557, RF Module is designed with an internal Copper Spreader for proper heat dissipation, which must be mounted onto a heatsink.

| | <u>Parameter</u> | <u>Specification @ 25° C</u> |
|-----------------------------|--|--|
| <u>Electrical</u> | | |
| 1 | Frequency Range | 400 – 450 MHz |
| 2 | Saturated Output Power | 300 Watts Minimum |
| 3 | Power Output @ 1dB Comp. | 180 Watts Minimum |
| 4 | Small Signal Gain | +20 dB min |
| 5 | Power flatness Small signal gain flatness | ± 0.50 dB max ± 1.50 dB max |
| 6 | IP ₃ | +60 dBm typical |
| 7 | Input VSWR | 2:1 max |
| 8 | Harmonics | ≤-20 dBc @ 180 Watts |
| 9 | Spurious Signals | ≤ -60 dBc @ 180 Watts |
| 10 | Input/Output Impedance | 50 Ohms nominal |
| 11 | DC Input Current | 30 Amps max |
| 12 | DC Input | 28 Vdc nominal 30 Vdc Maximum |
| 13 | RF Input | +40 dBm (10 W) max. |
| 14 | RF Input Signal Format | CW/AM/FM/PM/Pulse |
| 15 | Class of Operation | A |
| <u>Mechanical</u> | | |
| 16 | Dimensions | 7.2" x 4.1" x 1.0" |
| 17 | Weight | 3 lb. Maximum |
| 18 | Connectors | SMA female / Type-N |
| 19 | Grounding | Chassis |
| 20 | Cooling | Adequate Heatsink and Air-flow Required |
| <u>Environmental</u> | | |
| 21 | Operating Temperature | 0° C to +50° C |
| 22 | Operating Humidity | 95% Non-condensing |
| 23 | Operating Altitude | Up to 10,000' Above Sea Level |
| 24 | Shock and Vibration | Normal Truck Transport |

Specifications subject to change without notice

***Recommended Driver: 5303027**

